IN THE CLAIMS:

Please amend claims 10-12 as follows:

1. (Original) A water softening method in which a determination is made whether a valid regeneration in an operational cycle has occurred, which comprises the steps of:

providing a reference cell in a water tank and a spaced sensing cell in said water tank;

sensing the impedance difference of the solution in the water tank between the reference cell and the sensor cell;

if the impedance difference is one of a first, a second and a third state, determining whether a maximum rinse timer has timed out;

if the maximum rinse timer has timed out, determining whether the maximum time limit was a preset time period;

if the preset time period was reached, then triggering an alarm signal indicating that a valid regeneration did not occur.

2. (Original) The method of claim 1 further including the step that if the preset rinse time period was reached, discontinuing the operational cycle.

3. (Original) The method of claim 1, further including the step that if the preset rinse time period was not reached, discontinuing the operational cycle.

4. (Original) The method of claim 1, wherein the preset rinse time period is 99 minutes.

5. (Original) The method of claim 1 wherein said alarm signal is at least one of an audible and a visual alarm indicator.

6. (Original) The method of claim 1 further including after determining that the maximum timer timed out, determining whether the maximum time limit was reached.

7. (Original) The method of claim 6, wherein the preset maximum time period is 99 minutes.

8. (Original) The method of claim 1 further including making the determination of whether the maximum preset time limit was the preset time limit separately for each of said first, second and third states.

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9. (Original) A water softening method in which a determination is made whether a valid regeneration in an operational cycle has occurred, which comprises the steps of:

providing a reference cell in a water tank and a spaced sensing cell in said water tank;

sensing the impedance difference of the solution in the water tank between the reference cell and the sensor cell;

sequentially determining whether the impedance difference is one of a first, a second and a third state;

for each said state, determining whether a maximum rinse timer has timed out;

if the maximum rinse timer has timed out, determining whether the maximum time limit was a preset time period;

if the preset time period was reached, then triggering an alarm signal indicating that a valid regeneration did not occur; and

if the alarm signal is triggered, discontinuing the operational cycle.

10. (Withdrawn-Currently Amended) A water ~~treatment~~softening apparatus for use in a method in which a determination is made whether a valid regeneration has occurred, the method including the steps of providing a reference cell in a water tank and a spaced sensing cell in said water tank, sensing the impedance difference of the solution in the water

tank between the reference cell and the sensor cell, if the impedance difference is one of a

first, a second and a third state, determining whether a maximum rinse timer has timed out, if

the maximum rinse timer has timed out, determining whether the maximum time limit was a

preset time period, if the preset time period was reached, then triggering an alarm signal

indicating that a valid regeneration did not occur, said apparatus comprising:

a water tank;

a brine tank;

a conduit for providing brine from said brine tank to said water tank;

a conduit for providing a path for water to discharge from said water tank;

a reference cell in said water tank;

a spaced sensing cell in said water tank;

a circuit for sensing the impedance difference of the solution in said water tank

between said reference cell and said sensor cell;

a microprocessor connected to said circuit for aiding in determining if the

impedance difference is one of a the first state, a the second state and a the third state,

subsequently determining whether a maximum rinse time determined by the timer has been

reached, if so, was an upper preset time limit reached, and if so triggering an alarm signal for

alerting the user that a valid regeneration has not occurred.

11. (Withdrawn-Currently Amended) The ~~system~~ apparatus of claim 10 wherein further including a display connected to said microprocessor for indicating said alarm signal.

12. (Withdrawn-Currently Amended) The ~~system~~ apparatus of claim 10 wherein said alarm signal is at least one of audible and visual.